

2013 Cross Lake Aquatic Vegetation Control

LDWF, Inland Fisheries

Date Lake Formed – Originally impounded in 1926 encompassing 8,875 acres. The spillway was raised 1 foot in 1960 bringing it to a total of 9,960 surface acres.

Waterbody Type – lowland reservoir, with over 7000 acres being open water and the remaining acreage standing cypress.

Maximum depth: 16 feet

Parish – Caddo Parish, owned by the City of Shreveport.

Approximately 75% of the shoreline is developed.

This lake is used as a water supply for the City of Shreveport.

Age and condition of control structure – approximately 56 years old, fair condition – operable

Type of control structure – timber sheet piling weir spillway

The principal spillway crosses the embankment at latitude 32° 52' 54" N and longitude 93° 53' 55" W.

From the intersection of LA Highway 1 and LA Highway 2 in Vivian, Louisiana, proceed 5.7 miles easterly on LA Highway 2 to the west end of the embankment.

Description of Dam

Cross Lake has a concrete spillway approximately 189 feet in length, including steel gates that can be lowered 3 feet.

Average depth – 9 feet at normal pool stage

Watershed ratio – 16.5:1

Drawdown Potential of structure – Maximum drawdown capability is limited to 3 feet below normal pool stage by bottom contours of the lake.

Lake Commission – None

Cross Lake is owned, operated and maintained by the City of Shreveport as a water supply reservoir for the city. Drawdowns are not a viable management strategy due to its use as a city water source.

Bobby Johnson – head biologist - 318-673-7647

Wes Wyche – environmental engineer- 318-673-6072

What significant stakeholders use the lake?

Cross Lake is primarily used by lake residents, anglers, and the City of Shreveport as the main water supply for the city.

What are their needs and concerns?

The primary concern of the majority of user groups is access to shoreline homes and camps and recreational fishing.

What is the history of aquatic vegetation complaints?

Aquatic vegetation complaints have recently been restricted to giant salvinia. The City of Shreveport contracts aquatic weed control to the private company - Edko.

Have there been any controversial issues on the lake?

Control of aquatic vegetation is necessary to ensure usage of the lake as a city water supply without the clogging of intakes.

Limitations:

The main limiting factor is the primary use of the reservoir as a water source for the city of Shreveport. Aquatic herbicide treatments must be applied carefully around water intakes in accordance with the label restrictions. Lack of drawdown applied due to water use by the city.

Past Control Measures:

Recent aquatic plant control measures have included foliar herbicide applications for giant salvinia along with limited foliar herbicide applications for emergent and other floating vegetation along the inhabited shoreline areas. Most recently, diquat at a rate of 0.75 gal / acre was used in combination with a non-ionic surfactant on salvinia. Glyphosate at 0.5 gal / acre was used for emergent vegetation such as primrose, water hyacinth, and alligator weed. These treatments were all performed by EDKO for the City of Shreveport.

In 2012 the city of Shreveport again hired contractors to spray salvinia on the lake. LDWF was asked to tour the lake and advise in any ways to improve upon what the city was doing at this time. We suggested continue spray efforts as well as to incorporate giant salvinia weevil introductions. City personnel are waiting for weevils to stock on the lake as soon as they are available.

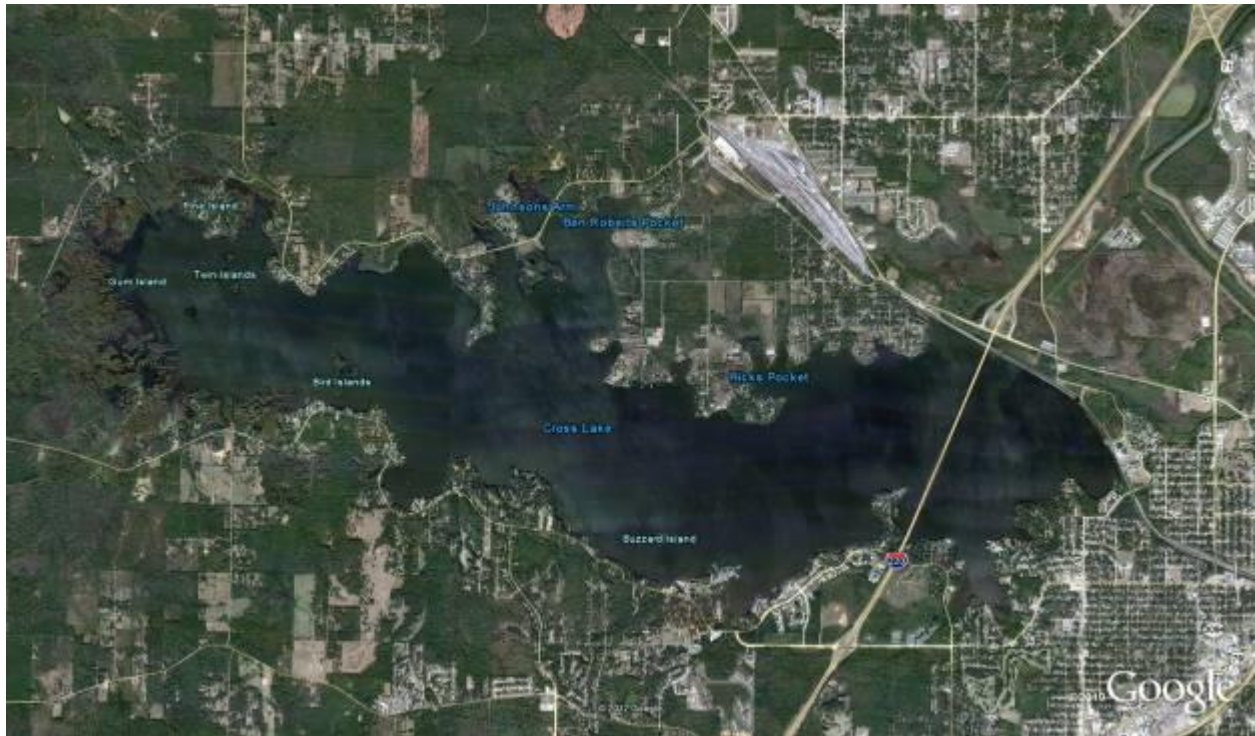
LDWF crews did not make any herbicide applications on the lake in 2012.

Recommendations:

LDWF offers no plant control assistance at this time because these issues are handled by the City of Shreveport.

In September 2012, LDWF personnel met with Bobby Johnson and Wes Wyche (City of Shreveport) to discuss giant salvinia problems on the lake. LDWF personnel also toured the salvinia infested areas by boat with Bobby Johnson. Treatment methods were discussed as was the recommendation to stock weevils in the inaccessible areas of the lake. Cross lake had an estimated 2000 acres of salvinia at the time of the visit. City personnel are waiting for weevils to stock and are continuing spray efforts by contractors.

Figure 1. Map of Cross Lake.



Terms of Agreement with City of Shreveport are as follows:

Terms of agreement between Bass Life, City of Shreveport and Louisiana Dept. Wildlife and Fisheries (LDWF).

January 2011

1. LDWF will transport fry from state hatchery to Cross Lake Fish Hatchery.
2. The City will allow 17 – 18 of its ponds for stocking of Florida Bass from state hatchery
3. Bass Life will donate \$10,000.00 annually for hatchery operations by February 28
4. All stocking amounts and destinations will be determined by LDWF
5. City personnel will manage and supervise hatchery operation
6. Hatchery staff will stock Cross Lake in accordance with LDWF's priority stocking list
7. Bass Life, upon reasonable notice, will be given the opportunity to transport and stock area lakes with fingerlings from Cross Lake Fish Hatchery in accordance with LDWF's priority stocking list
8. LDWF will transport and stock fingerlings from Cross Lake Fish Hatchery to area lakes which cannot be transported/stocked by Bass Life
9. Bass Life will hold the City harmless for any injuries
10. The City and Bass Life may continue this agreement for subsequent years, by mutual agreement
11. An authorized representative of Bass Life will sign the written agreement and return original